N432 Focus Sheet 5 2020—Newborn, RKC Ch 17, 18, 23,24; ATI Ch 23-27 ; Newborn Assessment PowerPoint; breastfeeding powerpoint; Newborn reflexes youtube video; Alexander street video on Newborn assessment.

RKC 17 & 18; ATI Ch 23

1. What does APGAR stand for? Apgar stands for "Appearance, Pulse, Grimace, Activity, and Respiration."

2. When are APGAR scores assigned? The test was performed on a baby at 1 and 5 minutes after birth. The 1-minute score determines how well the baby tolerated the birthing process. The 5-minute score tells the health care provider how well the baby is doing outside the mother's womb

3. What is a “normal” APGAR score versus a score that requires an intervention? A score of 7 to 10 after five minutes is “Normal” , a score of 4 to 6 is “moderately abnormal.” A score of 0 to 3 is concerning. It indicates a need for increased intervention, usually in assistance for breathing.

4. Describe the Initial assessment of a newborn immediately after birth? One of the first assessments is a baby's Apgar score. At one minute and five minutes after birth, infants are checked for heart and respiratory rates, muscle tone, reflexes, and color. This helps identify babies that have difficulty breathing or have other problems that need further care.

5. What are the normal expected ranges for a newborn for each of the following

weight	5lbs 8oz - 8lbs 13 oz
Length (crown of head to toe heel of foot)	18 inches - 22 inches
Head circumference (occipital to frontal)	13 inches - 14 inches
Chest circumference (nipple line)	12 inches - 13 inches
Temperature	97.8 F - 98.8 F
Pulse	120 - 160
Respiration	40 - 60
Blood Pressure	60/ 20 - 90/60

6. What does the New Ballard Scale (gestational age assessment) assess? (There is a PPT in the Resources with a link to a youtube video on the New Ballard Scale and an Alexander Street video on Newborn Assessment) The new Ballard score is commonly used to determine gestational age.

7. Define AGA, SGA, LGA, IUGR, term, preterm or premature, post term or postdate, postmature.
AGA: The term Appropriate gestationational Age (AGA), is used If the baby's gestational age findings after birth match the calendar age.

SGA: The term SGA means small for gestational age, and it is used to describe a baby who is smaller than the usual amount for the number of weeks of pregnancy. SGA babies usually have birth weights below the 10th percentile for babies of the same gestational age.
LGA: The term LGA means Large for gestational age, it is used for newborn who weighs more than 90% (8lbs 13oz) of other newborns of the same gestational age at birth.
IUGR: Intrauterine growth restriction, or IUGR, is when a baby in the womb (a fetus) does not grow as expected. The baby is not as big as would be expected for the stage of the mother's pregnancy. This timing is known as an unborn baby's "gestational age."
Preterm / Premature: A premature birth is a birth that takes place before the baby's estimated due date. In other words, a premature birth is one that occurs before the start of the 37th week of pregnancy.
Postterm / Postdate: Postterm pregnancy is defined as pregnancy that has extended to or beyond 42 weeks of gestation (294 days), or estimated date of delivery (EDD) + 14 days.

8. Review and summarize each component of the physical exam (Also see powerpoint slides) (There is a PPT in the Resources with a link to a youtube video on the newborn reflexes)

Posture: Child should be lying in a curled position with arms and legs moderately flexed.
Skin: Skin should be deep red or purple with acrocyanosis. Skin color should change over time to match the client's race.
Milia: multiple pearly white or pale yellow unopened sebaceous glands frequently found on the newborns nose.
Telangiectatic nevi: birthmark.
Nevus flammeus: port-wine stain. commonly on newborns' faces.
Erythema toxicum: newborn rash.
Caput succedaneum: localized edema on the scalp.
Cephalohematoma: localized subperiosteal collection of blood confined on the cranial bone.
Eyes: inspect external eye structures, including the eyelid, lashes, conjunctiva, sclera, iris, and pupils.
Ears: inspect size, shape, skin condition, placement, amount of cartilage, and patency of the auditory canal.
Nose: inspect for size, symmetry, position and lesions.
Mouth: inspect mouth, lips, and interior structures.
Neck: inspect for movement and ability to support the head.
Chest: inspect for size, shape, and symmetry.
Abdomen: inspect the abdomen for shape and movement.
Extremities: Assess for range of motion, bowing of legs, symmetrical gluteal folds, and nail beds should be pink.
Spine: Spine should be straight, flat, and easily flexed. The spine should appear midline.
Reflexes:
Sucking & rooting reflex- When the child's cheek is stroked, the child should turn their head towards this direction and attempt to suck.
Palmar grasp- The child's fingers will curl around a finger placed into the child's hand.
Plantar grasp- The child will curl the toes when the base of the toes are touched.
Moro reflex; the child will be placed face up on a soft, padded surface. The head is gently lifted with enough support to just begin to remove the body weight from the pad
Tonic neck reflex (fencer position): when administering the test lets the baby's head drop backwards slightly, and then catches the head before it hits the pillow or mat behind it. If a

baby's Moro reflex is present, the baby should appear startled and lift its palms upward, with its thumbs out.

Babinski reflex:it can easily be tested in a newborn simply by stimulating the bottom of the foot. A positive Babinski sign in a newborn is where the big toe extends upward and the rest of the toes flare out.

Stepping: checking to see if they move their feet as if they are stepping
Senses: looking to see if they react to touch, smell
Vision: looking to see if they are visually impaired or can see without issues
Hearing: looking to see if they react to sound
Touch: if they react to the physical touch
Taste: if they react to the taste of something (usually something sweet)
Smell: if they react to the smell

9. How is a newborns blood type determined?
ABO blood typing.

10. What are the normal Expected laboratory values for a newborn?

HGB	16-18 g/dl
Platelets	150,000-300,000
HCt	46-68%
Glucose	60-99
RBC count	4.5-7.0
Bilirubin 24 hr 48 hr 3-5 days	24 hour: 2-6 mg/dL 48: 6-7 mg/dL 3-5 days: 4-6 mg/dL
Leukocytes	9,000 to 30,000/mm3

11. What are the 3 primary complications noted with newborns? What are the nursing interventions for each of these complications?

Hypothermia: Place newborn in radiant warmer, monitor temperature every hour until stable.

Airway obstruction caused by mucous: Suction mouth and nose with bulb syringe.

Inadequate oxygen supply: Monitor respirations, assess for cyanosis, stabilize body temperature, and clear the airway. Administer oxygen. Prepare for the possibility of resuscitation.

RKC Ch 18; ATI Ch 24

1. Summarize the physical assessment of a newborn

There is a rapid newborn assessment tool called RAPP that is used.

RAPP stands for respiratory activity; perfusion/color; and position/tone.

2. When and how is Neonatal screening (sometimes called metabolic screening) done?

At birth and sometimes a provider will ask for a second test at around 2 weeks after birth during a follow-up appointment with your healthcare provider.

What is the importance of this test?

A blood test that could detect whether newborns had the metabolic disorder. A disorder or defect in the way the body breaks down food or other products (metabolism), phenylketonuria (PKU).Many foods contain phenylalanine. If your baby's body can't process it, it can build up in his or her blood and tissue.

3. What are the signs of respiratory distress in the newborn?

The clinical presentation of respiratory distress in the newborn includes apnea, cyanosis, grunting, inspiratory stridor, nasal flaring, poor feeding, and tachypnea (more than 60 breaths per minute). There may also be retractions in the intercostal, subcostal, or supracostal spaces.

4. Summarize the interventions for stabilization and resuscitation of the airway.

Provide warmth

- Open airway
- Clear the airway
- Thermoregulation
- Evaluate Respirations
- Evaluate Heart rate
- Evaluate Color
- Evaluate O2 saturation
- Positive-pressure ventilation (PPV) * When needed
- Reevaluate
- Intubate

5. Apply the nursing process to thermoregulation components and list appropriate nursing interventions

Thermoregulation in a newborn is a neurological system adaptation to extrauterine life. Newborns lose body heat, and lose it rapidly, 4 ways because their neurological systems are not fully developed at birth:

Conduction - Their warm body heat transfers to cooler objects that they come into direct contact with

Evaporation - From exposure of wet skin surfaces lost to the atmosphere

Convection - Their body heats transfers to the air surrounding them

Radiation - Their warm body heat transfers to cooler objects around them

Appropriate nursing interventions include placing the baby;

In an incubator, at 35-36°c (95-96.8°f);

In heated water-filled mattress;

In a warm room: the temperature of the room should be 32-34°c/89.6-93.2°f (more if the baby is small or sick);

In a warm cot: if it is heated with a hot water bottle or hot stone, these should be removed before the baby is put in;

If nothing is available or if the baby is clinically stable, skin-to-skin contact with the mother can be used in a warm room (at least 25°c/77°f).

6. What would you teach parents regarding:

Bathing; After the initial bath, the newborn's face, diaper area, and skin folds should be cleansed daily. Complete bathing is performed 2 to 3 times a week using a mild soap that does not contain hexachlorophene.Bathing by immersion is not done until the newborn's umbilical cord has fallen off and the circumcision has healed on males. Wash the area around the cord, taking care not to get the cord wet. Move from the cleanest to dirtiest part of the newborn's body, beginning with his eyes, face, and head; proceed to the chest, arms, and legs; and wash the groin area last.

Diaper changes; Keep the cord clean and dry, Keep the cord exposed to air. Don't cover it up inside the diaper where it may come in contact with urine or stool. To prevent this, fold the front of the diaper down below the cord. If needed, cut a notch in the front of the diaper to make a space for the cord.

Feeding; Breastfeeding is an optimal source of nutrition for newborns.Breastfeeding is recommended exclusively for the first 6 months of age by the American Academy of Pediatrics Newborns should be breastfed every 2 to 3 hr. Parents should awaken the newborn to feed at least every 3 hr during the day and at least every 4 hr during the night until the newborn is feeding well and gaining weight adequately.

Newborn Sleep; Place the baby on his or her back for all sleep times—naps and at night. , covered by a fitted sheet. Keep the baby's sleep area (for example, a crib or bassinet) in the same room where you sleep until your baby is at least 6 months old, or ideally, until your baby is one year old. Keep soft bedding such as blankets, pillows, bumper pads, and soft toys out of the baby's sleep area. Do not cover your baby's head or allow your baby to get too hot. Signs your baby may be getting too hot include sweating or his or her chest feels hot.

Elimination; Most newborns will urinate six to twelve times and have one to six bowel movements a day. Newborns should have at least four wet diapers a day but may go several days without a bowel movement. Breast fed infants tend to have more frequent and looser bowel movements than formula fed infants and will often have a bowel movement every time they nurse.

Infection control; Being mindful of who the baby comes in contact with: Breast milk is the best infant nutrition for many reasons, including helping to prevent infections in the baby, and promoting good hand hygiene.

Umbilical cord care; Keep the umbilical cord stump dry.Stick with sponge baths, avoid immersing the baby in water.Let the stump fall off on its own.

7. Medications to know:

Medication	Indications (why is this needed for THIS patient?)	Nursing Implications (what are you watching for?)	Dose
Erythromycin	Provides bactericidal actions to prevent chlamydia.	be alert for conjunctivitis, wear gloves, do not touch the tip to the eye, close the eye afterwards, wipe off excess ointment after 1 minute.	0.5%
Vitamin K (Aquamephyton)	provides the newborn with vitamin K which is necessary for clotting factors.	administer within 1-2 hours after birth,given IM, assess for bleeding, use a 25 gauge, hold the leg firmly.	0.5-1 mg
Hepatitis B	Protects against Hep B virus.	Hold leg firmly, give within 24 hours after birth, document.	0.5-1mg

8. Why is it important to monitor newborns for cold stress?

neonates and infants in the hospital setting frequently require a large portion of their body surface exposed for assessment and procedures which may lead to cold stress. Persistent cold stress is associated with increased morbidity and mortality, thus it is imperative to optimise thermoregulation.

What signs and symptoms are noted with this?

Cold, tingling, stinging or aching feeling in the frostbitten area, followed by numbness; Skin color turns red, then purple, then white or very pale skin, cold to the touch; Hard or blistering skin in severe cases.

What treatment is used?

Heat lamp, radiant warmer, warming pads, mattress, or blankets, submersion in a warm bath, heated, moisturized oxygen, warmed intravenous fluids or lavage fluids.

9. Why is it important to monitor newborns for hypoglycemia?

Appropriately monitor blood glucose levels in at-risk term and late-preterm infants. Manage documented hypoglycemia in infants. Establish and preserve maternal milk supply during medically necessary supplementation for hypoglycemia or during separation of mother and baby.

What are the signs and symptoms?

Shakiness, dizziness, sweating, hunger, fast heartbeat, inability to concentrate, confusion, irritability or moodiness.

What is the treatment?

The immediate treatment for hypoglycemia is giving the baby a rapid-acting source of glucose such as a mixture of glucose/water or formula as an early feeding if the baby is able to take by mouth. If the baby is not responding and has seizures, IV fluids containing glucose are the best choice to raise the blood glucose quickly.

ATI Ch 25 Breastfeeding powerpoint

1. Describe the key nutritional needs of the newborn.

Infants need energy, protein, vitamins, and minerals.

2. According to the American Academy of Pediatrics, how often should newborns breastfeed?

Every 2 - 3 hours

What infant specific benefits have been found with breastfeeding?

Breast milk contains antibodies that help your baby fight off viruses and bacteria.

3. List 4 interventions to promote successful breastfeeding.

initiating breastfeeding within the first hour of life, placing the newborn on the mothers chest/abdomen, keeping the newborn with the mother throughout the hospital stay, following the newborns feeding schedule.

4. Breastmilk can be stored in each of the following for how long?

__4__ hr at room temperature

4 days refrigerated in sterile bottles

6 months in frozen sterile containers in the freezer compartment of a refrigerator

12 _ months in a deep freezer

5. How often should bottle-fed babies be feeding?

Every 2-3 hours.

6. What should be assessed when determining proper nutrition for the newborn?

Height, weight, BMI, skin color, oral mucosa.

7. What cues are exhibited by a newborn to show feeding readiness?

Early feeding cues may include smacking or licking lips, opening and closing mouth, sucking on lips, tongue, hands, and toys.

8. What techniques can you teach parents in order to wake a sleepy baby to feed?

These techniques can include such basic measures as talking, singing, and gentle stimulation, picking the baby up, talking to them, moving their arms and legs around, even tickling the bottom of their feet or rubbing their cheeks.

9. What techniques can you teach parents comforting a fussy baby?

Swaddling the babies, placing the babies in the arms of their parents and placing the body on the left side, walking the baby in a body carrier or rocking her. If it is not yet time to feed the baby, offer the pacifier or help the baby find her thumb or finger.

10. What is failure to thrive?

Failure to thrive (FTT) is a term used to describe inadequate growth or the **inability** to maintain growth, usually in early childhood.

ATI Ch 26

Since the majority of OB is about education/teaching, you are responsible for all information in this chapter, as you will use it clinically and during theory/exam.

1. Write up 5 things you would include in the discharge teaching for the newborn.

RKC Ch 23 & 24; ATI Ch 27

ensure follow up care, Providing immunization information, ensure the parents know important information about day-to day information like baths, provide a learning environment, and build the parents self-esteem.

1. Describe what the neonate going through substance withdrawal would look like.

High pitched excessive cry, tremors and irritability, sweating, fever, poor sleep, loose stools, vomiting, and failure to thrive.

2. How can infants be tested for maternal drug use and what nursing care should be implemented for infants who are withdrawing? Testing in newborns can be performed on urine, blood, meconium, hair, or umbilical cord blood or tissue samples.

3. What medications are often used to help with withdrawal symptoms? Morphine or phenobarbitone may be given to treat symptoms of withdrawal.

4. Hypoglycemia in the newborn is defined as: a blood glucose level of less than 30.

5. What does a hypoglycemic infant look like? The infant may be jittery, lethargic, cyanotic, apneic, have seizures, high pitched cry, hypothermia, and poor feeding.

How would they be treated? dextrose gel, or breastfeeding/bottle feeding.

6. RDS is a result of surfactant deficiency in the lungs causing poor gas exchange and ventilatory failure. What is surfactant? Surfactant is a mixture of fats and proteins in the lungs that coats the alveoli. The surfactant prevents the alveoli from sticking together when the baby exhales. If surfactant is deficient it can cause the alveoli to collapse.

What complications arise from RDS? The alveoli can collapse

air buildup in the sac around the heart, or around the lungs, intellectual disabilities, blindness, blood clots, bleeding into the brain or lungs, bronchopulmonary dysplasia (a breathing disorder), collapsed lung (pneumothorax), blood infection.

7. What risk factors are included in the assessment for RDS?

The greatest risk factor for respiratory distress syndrome is prematurity, although the syndrome does not occur in all premature newborns. Other risk factors include maternal diabetes, cesarean delivery, asphyxia, infection, problems with your baby's lung development, stress during your baby's delivery, especially if you lose a lot of blood, and you having diabetes.

8. What does an RDS infant look like?

Fast breathing. Retractions (The skin pulls in between the ribs or under the rib cage during fast and hard breathing) Grunting.

9. Describe the order of interventions during the immediate period after the infant is born. presentation and care of the newborn.

The Apgar scoring is done during the first 1 minute and 5 minutes of life. The heart rate, respiratory rate, muscle tone, reflex irritability, and color are evaluated in an infant. Apgar score is the baseline for all future observations.

Respiratory Evaluation With every newborn contact, respiratory evaluation is necessary because this is the highest priority in newborn care.

Physical Examination; physical examination is done to detect any observable conditions and physical defects.

10. SGA vs LGA, compare and contrast.

	SGA	LGA
Risk factors:	Congenital anomalies Maternal infections Hypertension/diabetes Placental factors	Postmature newborns Maternal obesity Maternal diabetes mellitus Multiparity
Findings	Weight below 10th percentile Reduced body dimensions Respiratory distress/hypoxia Decreased sub-q fat acrocyanosis	Weight above 90th percentile Large head Hypotonic muscles Manifestations of hypoxia hypoglycemia
Care considerations	Support respiratory efforts Suction when necessary Administer parenteral nutrition Prevent skin breakdown Maintain hydration	Obtain early and frequent blood glucose tests. Provide thermoregulation Initiate early feedings to maintain glucose levels.

11. Discuss the variations between physiologic and pathologic jaundice.

A newborn's immature liver often can't remove bilirubin quickly enough, causing an excess of bilirubin. Jaundice due to these normal newborn conditions is called physiologic jaundice, and it typically appears on the second or third day of life.

Jaundice is considered pathologic if it presents within the first 24 hours after birth, the total serum bilirubin level rises by more than 5 mg per dL (86 mol per L) per day or is higher than 17 mg per dL (290 mol per L), or an infant has signs and symptoms suggestive of serious illness.

What tests are done to determine the severity of the jaundice (high bilirubin level)?
Blood tests (total serum bilirubin, TSB) can measure bilirubin levels. While there is a urine test for bilirubin, it is less accurate and often falsely positive. If a routine urine test detects bilirubin, a doctor will look at blood serum tests to confirm the results and identify any damage to the liver.

How are elevated bilirubin levels in newborns treated?
Frequent feedings (between 8 to 12 times a day) will help babies pass bilirubin through their bodies. More severe jaundice may require other treatments. Phototherapy is a common and highly effective method of treatment that uses light to break down bilirubin in your baby's body.

12. What assessments and nursing interventions are done for an infant who is under a bilirubin ultraviolet light or on a bilirubin blanket?

Closely monitor body temperature and fluid/electrolyte balance, document frequency, character, and consistency of stools, monitor hydration status, turn frequently, observe skin integrity, and provide eye protection.

13. Congenital anomalies: Describe patent ductus arteriosus, Tetralogy of Fallot, and Down Syndrome.

Patent ductus arteriosus (PDA) is a medical condition in which the ductus arteriosus fails to close after birth: this allows a portion of oxygenated blood from the left heart to flow back to the lungs by flowing from the aorta, which has a higher pressure, to the pulmonary artery.

Tetralogy of Fallot is a birth defect that affects normal blood flow through the heart. It happens when a baby's heart does not form correctly as the baby grows and develops in the mother's womb during pregnancy.

Down syndrome is a condition in which a child is born with an extra copy of their 21st chromosome — hence its other name, trisomy 21. This causes physical and mental developmental delays and disabilities.